AN INTERMODAL LOGISTICS SYSTEM WHY AND HOW

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OUTLINE

- WHAT WE ARE LOOKING FOR
- WHERE WE ARE TODAY (SOME FACTS)
- CRITICAL FACTORS
- HOW TO DO IT

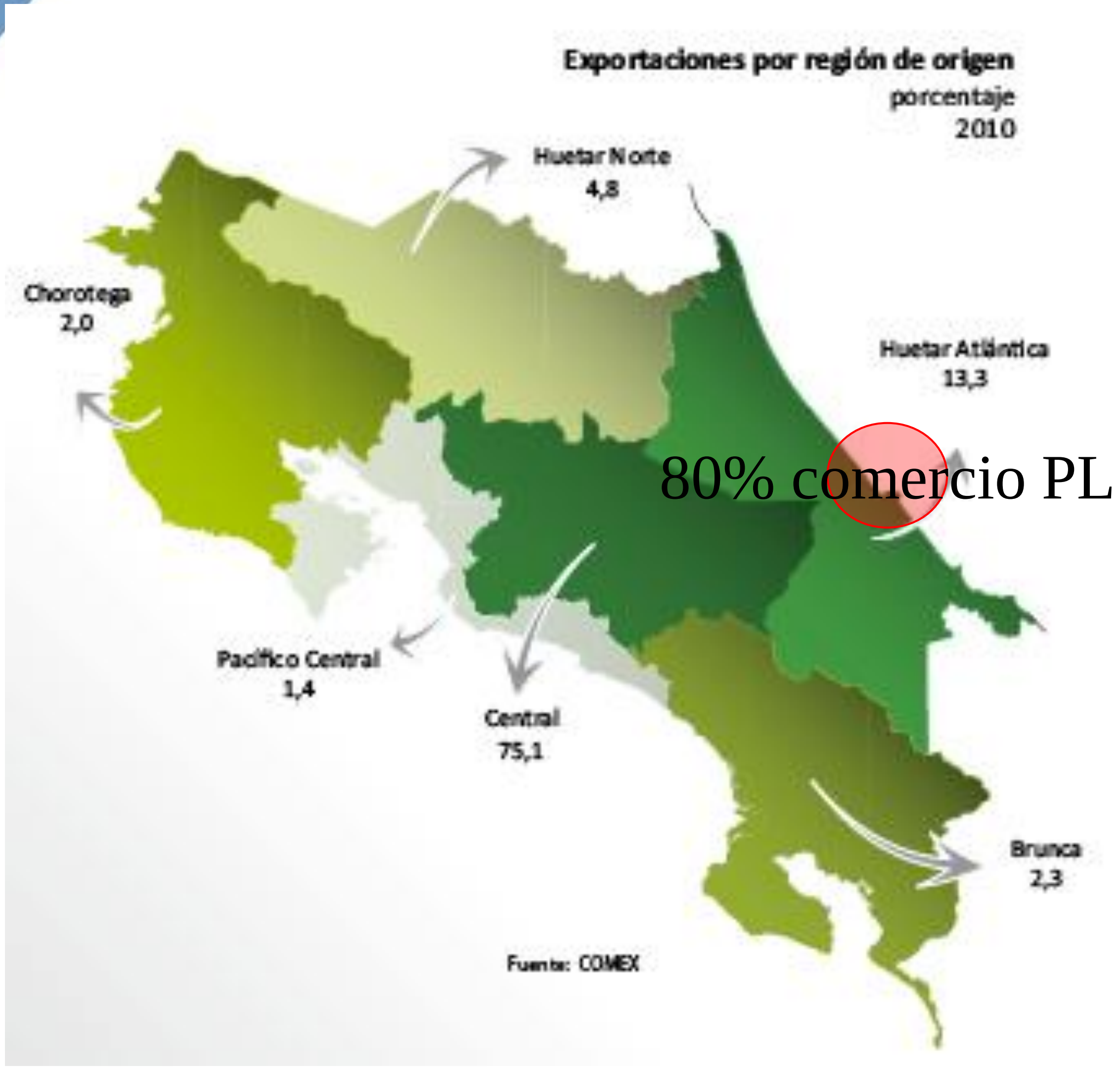
WHAT ARE WE LOOKING FOR?

- Scapegoats or solutions?
- We all agree we have a problem!
- The objective is not a certain type of contract, a law, infrastructure, logistics, engineering, or technical analysis
- All the above are instruments and tools
- What is the objective? What are we looking for?
- Why is infrastructure so important?

- The mission is Social and Economic Development

  Due to Globalization (the integration of product and services markets) we are more and more dependent on an integrated logistical system

      » Costa Rica depends on international trade, tourism and national and foreign investment
      » We have been successful in increasing our exports, increasing our revenues, and increasing direct foreign investment
      » We are successful in market diversification
      » We are successful in the quality of products and services provided
      » We have a dynamic private sector
      » No success in empowering rural areas
      » No success in having competitive logistical systems
      » No success in infrastructure
      » No success in poverty reduction



- If we want to stimulate employment and investment in rural areas, improving the national and regional logistics systems must be a priority. Not just infrastructure.

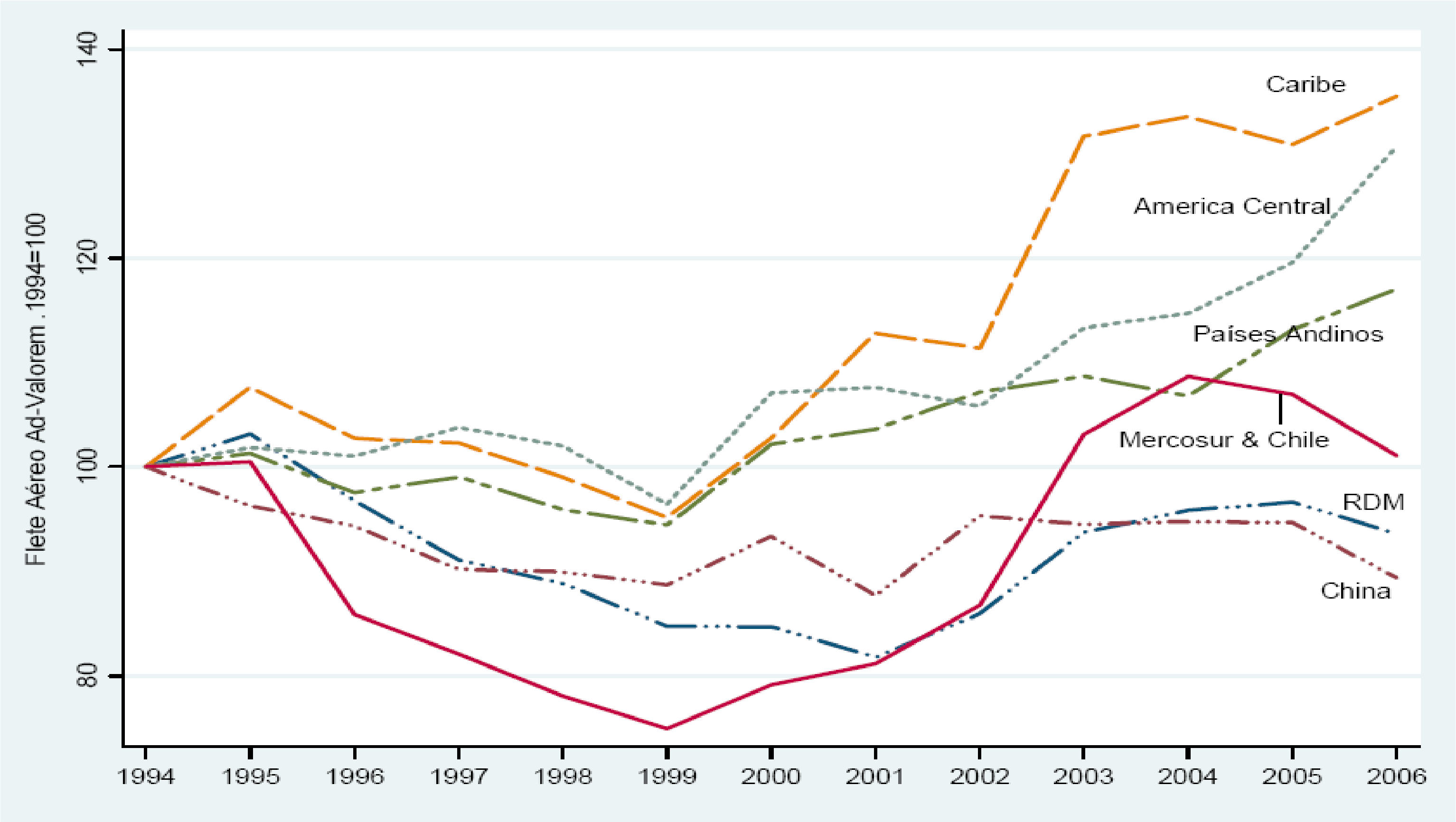
Where are we today?

- All sectors agree on the need to invest in infrastructure
- All sectors agree there needs to be a new legal framework (a true PPP law and not just a concessions law?)
- We all agree on the long term vision!
- We all know and agree that Public-Private investment is needed
- Why an intermodal logistics system and not just infrastructure?

Some Facts

WE ARE NOT ALONE!
LET'S COMPARE!

Trend in air freight costs for exports to the United States by trade regions



Subregiones de ALC, China y resto del mundo (RDM), 1994-2006. 1994=100

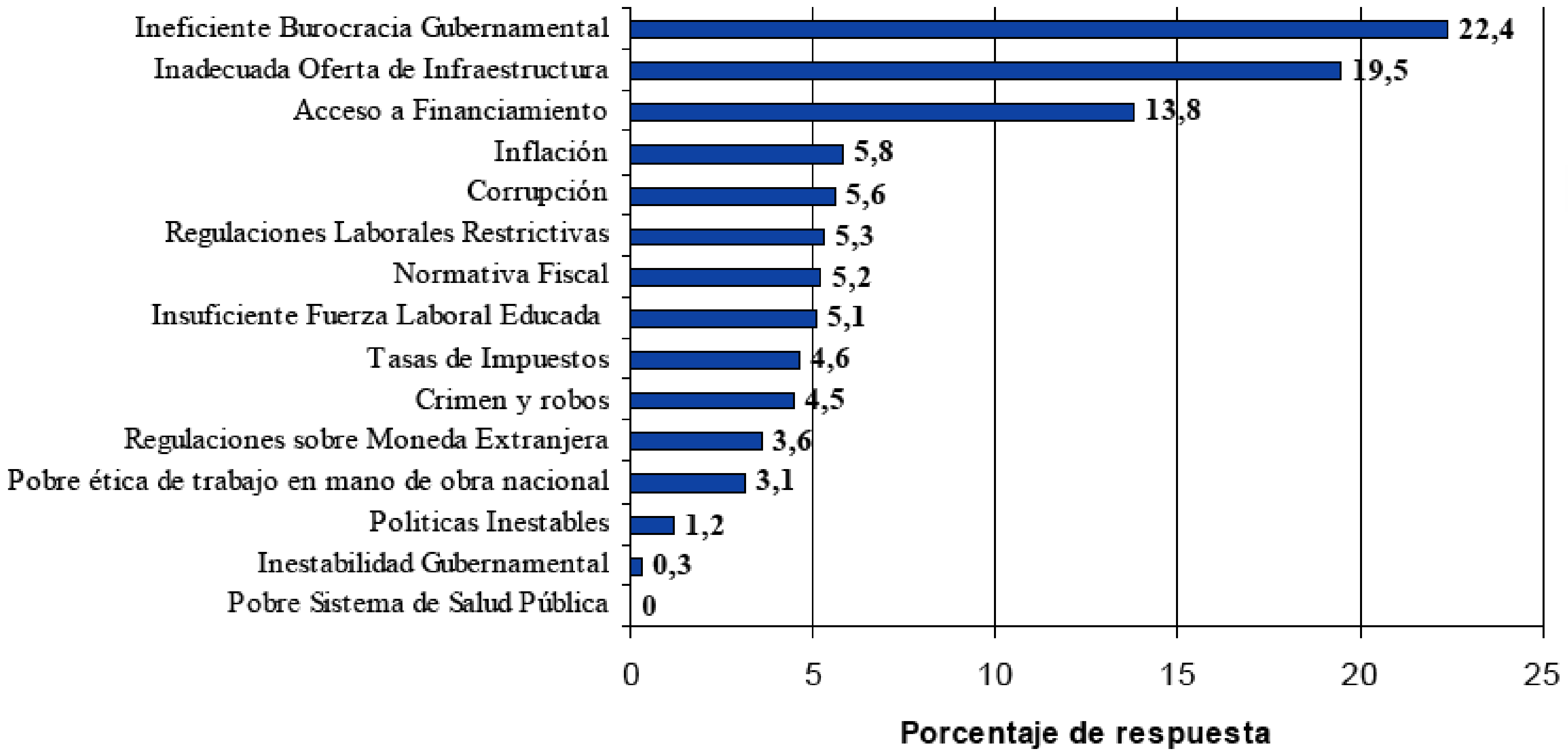
Fuente: Reporte de Competitividad Global 2010-2011 del Foro Económico Mundial.

Costa Rica Vs. Central America according to the Competitive Index from the World Economic Forum

	GUA	PAN	CRC	ESV	HON	DOM	NIC
Índice de Competitividad Global	78	53	56	82	91	101	112
Requerimientos básicos	85	49	62	71	91	107	109
Instituciones	124	73	51	101	108	117	127
Infraestructura	66	44	78	59	85	107	111
Estabilidad macroeconómica	63	29	108	64	100	88	110
Salud y educación primaria	96	76	22	81	82	107	95
Potenciadores de Eficiencia	81	62	58	87	104	92	122
Educación superior y capacitación	104	82	43	101	106	99	113
Eficiencia del mercado de bienes	61	50	48	53	83	109	116
Eficiencia del mercado laboral	101	106	45	88	134	89	110
Desarrollo del mercado financiero	44	21	85	78	67	99	109
Preparación tecnológica	67	41	57	81	94	66	125
Tamaño del mercado	75	85	82	87	90	71	109
Factores de innovación y sofisticación	62	54	33	96	98	99	126
Sofisticación de los negocios	54	46	32	68	85	82	118
Innovación	89	64	35	126	106	118	124

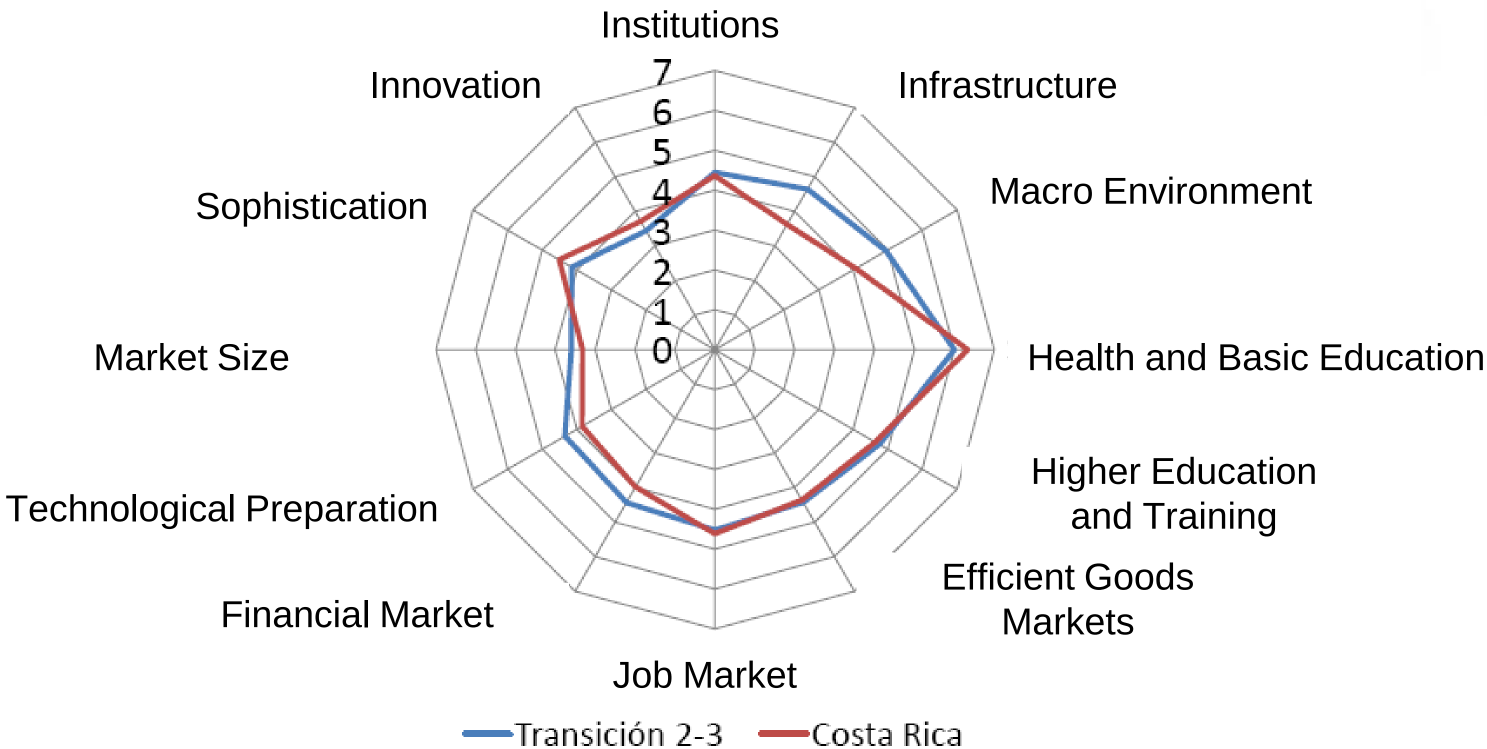
Fuente: Reporte de Competitividad Global 2010-2011 del Foro Económico Mundial.

The Most Problematic Factors for doing Business

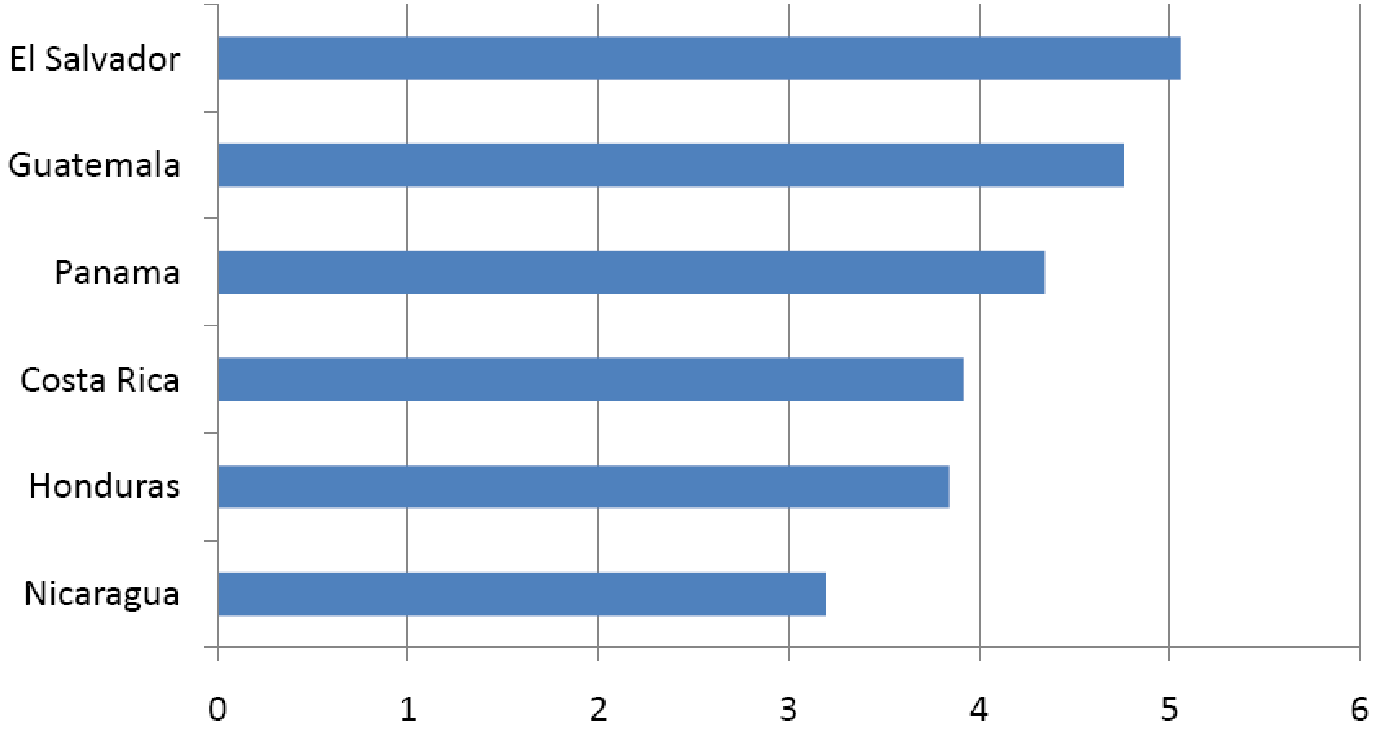


Fuente: The Global Competitiveness Report 2010-2011

Comparison with more developed countries (Countries in transition from stage 2 to 3)



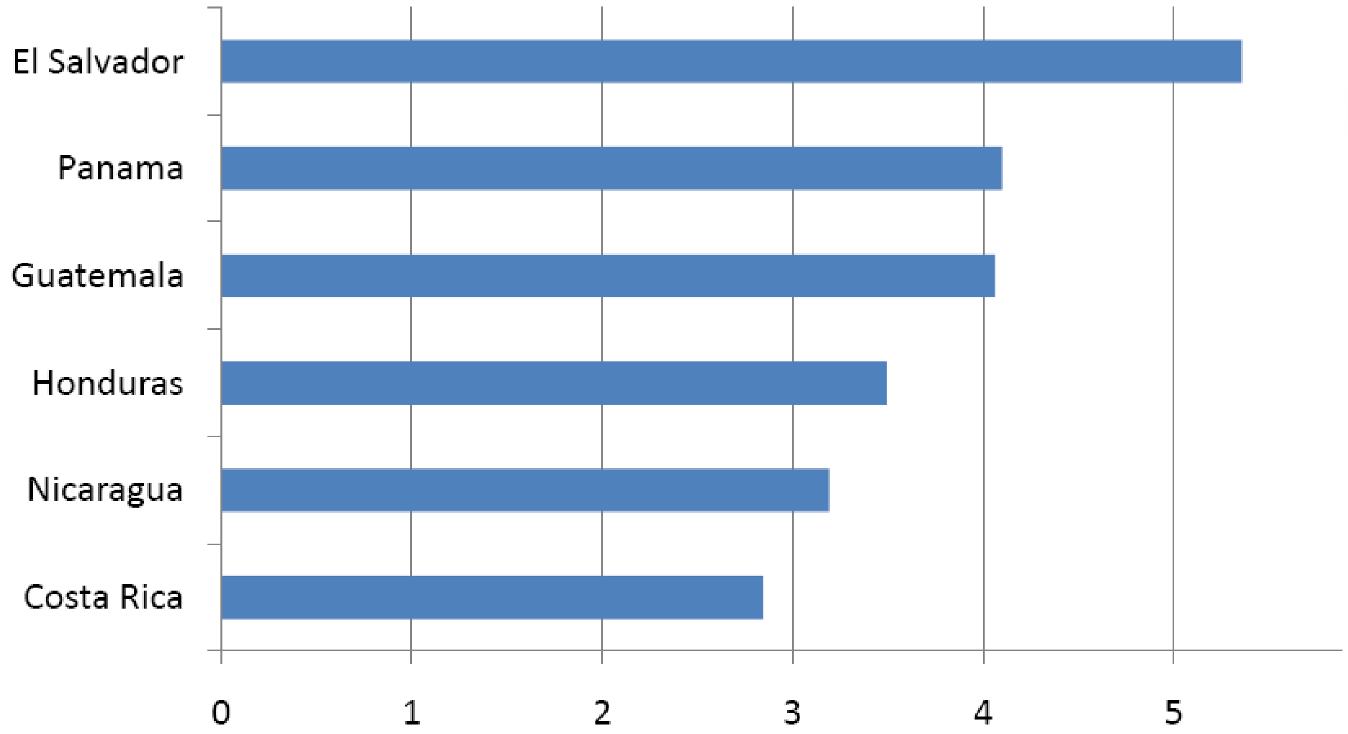
General Evaluation of Infrastructure Quality



Costa Rica ranks 77

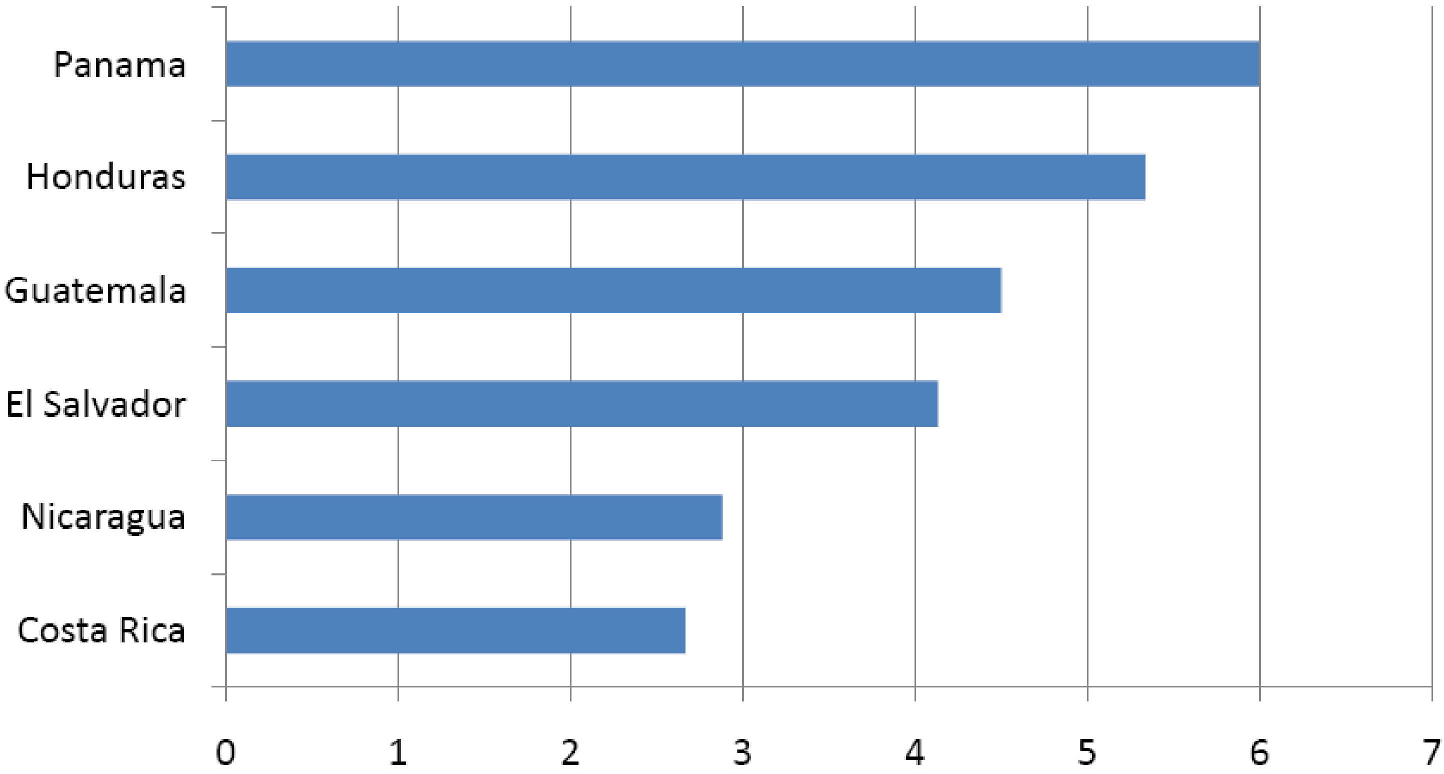
Fuente: Informe de Competitividad Global 2010-2011, Foro Económico Mundial

Road Infrastructure Evaluation



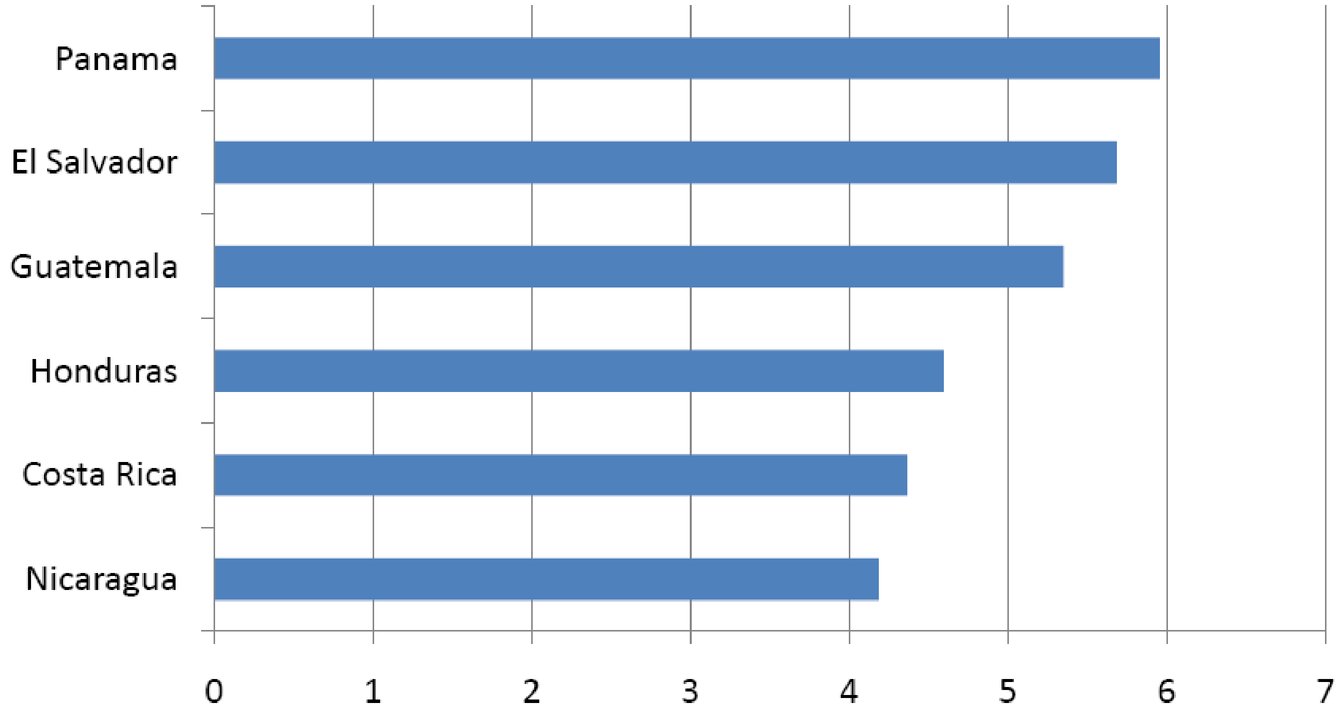
Costa Rica in position 111

Port Infrastructure Evaluation



Costa Rica in position 132

Air Transport Infrastructure Evaluation



Costa Rica in position 80

A Country of Contrasts

In brief: Why are we in position 56/139?

- ✓ Good performance in health and primary education
- ✓ Institutional transparency
- ✓ Sophisticated and innovative companies

- ✘ Bureaucracy, access to financing and corruption
- ✘ Significant lag in infrastructure (transport)
- ✘ The growing security problem

Other Indices Also Point to the Same Problems

Percentage of negative opinions on the quality of infrastructure related to transport

	Costa Rica	Middle Income Countries
Ports	100%	24.81%
Airports	100%	22.89%
Roads	100%	17.79%

In spite of the obvious improvements in recent years, the perception is still negative.

Source: Logistics Performance Index, World Bank 2010

	Activities	Functions	Typical Components
Transport Infrastructure and Services	INTERNAL FLOWS	Cargo movements inside national territory	➢Roads, autotransportation ➢Railroads ➢River Navigation ➢Urban Logistics
	TRANSFER NODES	Transfer nodes for foreign trade	➢Ports ➢Airports ➢Border Crossing
	EXTERNAL FLOWS	Cargo movements outside the national territory	➢Maritime, air transportation ➢International Road transportation
	INTERPHASES AND COORDINATION	Commercial and Operative coordination between modes	➢Reception and delivery coordination ➢Intermodal transport
Corporate Logistics	ORAGANIZATION OF SUPPLY CHAINS	Supply chain design and management	➢Supply and inventory management ➢Distribution
	LOGISTICAL OPERATORS AND AGENTS	Integrated logistical services	➢Logistical operators, 3PL, forwarders, agents ➢OTM, ZAL
Trade Facilitation	INFRASTRUCTURE "SOFT" AND CUSTOMS	Tracking and inspection of cargo in national territory and international movements	➢TIC ➢Customs, maritime regulation
	COMMERCIAL POLICY SYSTEM	Governmental strategy implementation and design	➢FTA, EPA, WTO ➢Standard unification ➢Environmental/labor measures
	BUSINESS CLIMATE	Legal environment and its impact on enterprise operations	➢ISO, SPS, Security ➢Export promotion

The main activity blocks that affect logistics are: i) infrastructure and transport services; ii) corporate logistics and iii) commercial facilitation

Summary of Analysis of the Critical Components of a Regional Logistics System

	Roads	Roadway Freight Transportation	Ports
Current Situation	Low coverage and mediocre condition	Low efficiency, lack of professionalism	Intermediate, strong impact on reforms and PPP
Main Needs	Multiple: more coverage, maintenance, increase in capacity, standard modernization, rural roads	Modernization of operational management	Increase capacity and improve performance. Reforms where needed, adjustments to the reforms already implemented.
Difference by type of country	Poorer countries: high investment. Larger countries, with territorial gaps: road network needs to be expanded.	Problems are greater in countries with lower revenues; duality in middle income countries.	The differences occur more often because of the management model than a country's revenue.
Investment, public and private roles	High need for investment – mainly public investment. Source of financing?	Private investment. Public sector may facilitate a renewal of a cleaner, more efficient fleet.	Plenty of room for PPPs. Need good designs and regulatory capacity.
Sector Know-How	Generally good.	Very Low	Generally good.
Impact on Logistics	High, but difficult to measure, affects mobility as a whole. Pressure for heavy motorization.	Very high, no only on freights, downstream the value chain. In domestic and international logistics.	Very high in foreign trade, with the ability to affect the entire road and maritime chain.

	Railroads	Commercial Facilitation	Small and Medium-Scale Enterprises (SME) and Regional Logistical Development
Current Situation	Intermediate to good in cargo, where reforms have been done; great potential for expansion	Intermediate, improvements underway. Unequal, cases with great delays	Small and medium size businesses with very high costs.
Main Needs	Improvements in infrastructure, port access, belts in urban areas.	Transparent and fast procedures, paperless systems, one stop window, transit made simple	Training, integration, platforms (ZAL), operator strengthening, institutional development
Difference by type of country	Greater potential in bigger countries, with massive cargo	More related to institutional quality than revenues	More appropriate in middle income countries
Investment, public and private roles	Room for PPPs. Requires good regulation.	Public sector responsibility	State is the promoter of private sector development
Sector Know-How	Generally good	Generally good	Considerably low
Impact in Logistics	High when in cargo is in bulk. Potential in general cargo if it is latched to intermodal domestic and international transport	Very high in international commerce	Probably high; impact on small and medium size businesses that are oriented towards regional commerce

Sector	Logistical Cost
Trade	13.8%
Construction	40.0%
Mass Consumption	7.8%
Pharmacy	5.3%
Manufacturing	12.5%
Petrochemical	6.5%
Services	31.0%
Logistical Services	27.9%
Technology	6.5%
AVERAGE	**17.8%**

- Based on the results of Summary Table 5 and the experience of working in the Region, 6 factors have been identified as critical, and whose performance will affect logistics in general, and foreign trade in particular:
  - Coverage and road conditions
  - Roadway freight transportation performance
  - Ports
  - Railways
  - Commercial facilitation and border operations
  - Small and Medium-scale enterprise performance in managing the supply chain and the development of regional logistics

All Cargo Logistics in Central America are Terrestrial

- The road network development in the Region suffers from structural delays that are reflected in the relatively low levels of coverage and in the poor condition of these assets; meanwhile, it also faces the effects of an intense growth in traffic (due to greater activity, more commerce and increase in motorization).
- Both challenges (increasing coverage, rehabilitating, modernizing, and maintaining on one hand, and increasing capacity, on the other) require a considerable financial and institutional management effort, making the infrastructure sector the one with the highest demand in resources.
- The impact of improvements in the road network definitely affects freight logistics costs, but simultaneously satisfies many other mobility needs the population has, other than just logistics.

Ports in Central America

- Many ports in the Region have achieved satisfactory performance in loading and unloading ships; public-private participation has proven to be particularly efficient in this sector.
- Even in successful cases there continue to be issues in the organization of the port community, coordination between actors, and in the relationship with the city.
- In some cases the ports continue operating under inadequate management models and are lagging behind.
- The impact these port improvements have on foreign trade is formidable: it is probably the area where greatest improvements can be made to improve competitiveness.

Railroads

- More than 60% of fossil fuel prices is driven by cargo transportation costs.
- The rights-of-way are already in place.
- There is electricity and fiber optic cable along the entire railroad track.
- Investing in a cargo railroad system would reduce inflation & pollution, would require less investment in road maintenance, and would reduce transit times and highway fatalities, among other things.
- This project could only be done through PPP.

Supporting SME’s in Logistics

- SMEs are great employment generators, which makes their competitiveness of great interest to countries and sub-national entities.
- The logistical performance for SMEs is clearly inferior to large enterprises; the estimated SME logistical costs for the Region are two to three times greater than for larger enterprises.
- Exporting SMEs are oriented towards interregional trade.
- Analysis and proposals in this topic are scarce, especially considering the impact they could have.
- Some international experience suggests that several development support policies can be implemented to aid SME clusters to increase their competitiveness.

Costa Rica

- Maritime access is limited by inefficient ports, disjointed dockside operations, vessel draft restrictions
- There are excessive delays at border crossings
- Customs modernization is just beginning, has reached some but not all border crossings
- Roads are inadequate: they need maintenance & refurbishing, greater capacity, and better standards for major trunk roads
- Urban congestion is growing
- Road vandalism is increasing

Reasons for Weak Logistical Performance

- **Institutional Weakness.** The public sector institutions that have an impact on logistical performance have a profound weakness, particularly a lack of trained personnel in national and sub-national government offices and supervision and monitoring information systems. This weakness manifests itself in the lack of coordination between sector policies, government jurisdictions, and public-private actors.
- **Regulations.** One of the more relevant aspects of logistics are the regulations that normally govern transport systems and border operations. These regulations come about from processes that responsive to countless interests and the results do not always reflect the common good.
- **Shortage of financing**. The significant reduction of public investment in infrastructure dates back to 1990 and wasn't offset by an increase in private investment. The required levels of investment in infrastructure should be around 5%-7% of GDP to maintain current networks, improve their coverage, satisfy demand growth, and accomplish – in 20 years – a level similar to Asia's more successful countries. The current investment of the region is 4% (3% public, 1% private).
- **Lack of human resources and corporate capacity**. Logistical performance depends, not only on the public sector's ability, but also on the those of the private sector. The main weaknesses are usually in smaller businesses that provide cargo and provide logistical services.

These aspects should be considered when concrete measures to improve logistical performance are designed.

5 Priority Action Areas in a Regional Plan

- First, provide basic, general purpose infrastructure (roads); the magnitude of the financing requirement (including maintenance) demands this be considered separately from all other needs.
- Second, provide a bundle of infrastructure services to support cargo movement, primarily through the private sector using PPP structures. Regulatory framework is critical. This is primarily ports and railways.
- Third, provide for essential government services, such as customs, immigration & inspections that facilitate commerce and control highway vandalism, mostly at ports, border crossings or highways near urban centers.
- Fourth, support private sector development; this includes technical assistance to small & medium enterprises in developing their supply chains, including shippers, logistics companies, and other operators.
- Fifth, organize the public sector to promote quality in the development of logistics, including coordination between sectors, public & private jurisdictions, and implementing systems for monitoring logistics development and human capital development.

Action Areas

Action Areas	Time Frame	Investment Requirements	Institutional Requirements
Basic infrastructure development	Medium to long	High. High public investment	Lower for network expansion; higher for maintenance
Infrastructure services & regulation	Short & medium	Medium-high. Room for APP's	High. Ability to design APP's, regulate services, not get stuck
Government services	Short & medium	Low-medium. Basically public	High. Need to modernize processes & culture
Private sector development support	Short & medium	Low. Modernization support	Medium-low. Ability to design & execute projects
Organization & institutional development	Medium to long	Minimal	High. Coordination within public sector, and public-private

How to do it?

- This needs to be a visionary project – take the long range view
- Take a fully integrated approach
- Reach genuine agreement between the sectors through dialog and good faith negotiations
- Collaborate along economic, tecnical and political lines
- Draft a new PPP law
- Costa Rica should not copy someone else's PPP law; it should be crafted around the country's own needs.
- AND DON'T FORGET HOW THIS PROJECT FITS INTO THE REGIONAL CONTEXT!

THANKS!